6.4400, 6.9000

77948
SOV/109-5-3-2/26

AUTHOR: Aleksandrov, M. S.

TITLE: Distribution of Phase Angle Oscillations in the Aggregate of Fluctuating Signal, Noise, and Correlated Noise Interference

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol 5, Nr 3, pp 360-365 (USSR)

ABSTRACT: The article deals with theoretical development and analysis of differential and integral laws of probability of phase angle distribution in the aggregate of fluctuating a signal, white noise, and correlated interference noise. It is demonstrated that in presence of correlated noise the mean value of phase angle between the resulting oscillations of signal, white noise, and interference is different from the phase angle of received signals. Introduction. The problem was solved for signals with a constant amplitude by V. V. Tsvetnov (Statistical

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Distribution of Phase Angle Oscillations in the Aggregate of Fluctuating Signal, Noise, and Correlated Noise Interference

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Properties of Signals and Noises in Two-Channel Phase Systems, Radiotekhnika, 1957, 12, 5), but the separate relations were given before by V. I. Bunimovich (Fluctuation Processes in Radio-Receiving Devices, Publ. Sovetskoye Radio, 1951). Due to the nonuniformity of propagation conditions, the magnitude of the radio signal usually fluctuates at the receiver. Therefore, a more complete statistical characteristic of the radionavigation system must take the fluctuations of signal intensity into consideration. The computation of probability density and the integral law of probability distribution of phase angles in the aggregate of signal, noises, and the normal correlated interference noise for two-signal reception, shifted in phase, are given below. (1) Initial Assumptions. (a) Signal amplitudes fluctuate per Rayleigh:

$$w(z) = \frac{z}{\gamma^2} e^{-\frac{z^2}{2\gamma}}, \qquad (1)$$

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where

$$\gamma = \frac{\overline{u_s^2}}{\sigma^2} = \frac{\overline{u_s^2}}{\sigma_i^2 + \sigma_n^2} = \frac{\gamma_1}{1+\alpha}$$

is the ratio signal-to-summary noise by power level; γ_1 is ratio signal-to-interference per power level; $\alpha = \sigma_n^2 / \sigma_i^2$ is ratio noise-to-signal-to-interference per power level. Signal attenuation occurs simultaneously in both channels. (b) Noises in both channels are normal, noncorrelated; interferences are normal, correlated, the analogous square components only being correlated. The mutual correlation coefficient of analogous square components of the interference proper in different channels is p_1; that of the summary interference (noise + correlated interference) is $p = p_1(1+\alpha)$. (c) Oscillation

phase of summary interference φ in the first of the channels with relation to the oscillation phase of signal in the same channel is of random value and uniformly distributed within limits 0 to 2 .
In this diagram notations are ξ = phase angle of signal oscillations in two channels; φ = unknown phase angle of resulting oscillations. (2)
Mathematical Formulation of Problem. The normal distribution law of probability density for square components of summary interference is (per S. O. Rice):

$$w(x_1; x_2; x_3; x_4) = \frac{1}{(2\pi)^2 \sqrt{|M|}} e^{-\frac{1}{2|M|}\sum_{i=1}^{i=4}\sum_{j=1}^{j=4} M_{ij} x_i x_j} \qquad (2)$$

where the determinant of the matrix of second moments is:

$$|M| = \sigma^8 (1 - \rho^2),$$

but the minors of this determinant, which are included in the exponent, are:

$$M_{11} = M_{22} = M_{33} = M_{44} = \sigma^6(1-\rho^2),$$
$$M_{12} = M_{14} = M_{21} = M_{23} = M_{32} = M_{34} = M_{41} = M_{43} = 0,$$
$$M_{13} = M_{24} = M_{31} = M_{42} = -\rho\sigma^6(1-\rho^2).$$

Changing to polar coordinates and completely cumbersome mathematical calculations, the sought distribution of probability densities of phase angles for the aggregate oscillations of signal, noise, and correlated interferences is:

$$w(\varphi) = \frac{1-\rho^2+2\gamma(1-\rho\cos\delta)}{2\pi(1+\gamma)^2}\,\frac{1-\beta\operatorname{ctg}\beta}{\sin^2\beta}, \qquad (4)$$

where

$$\beta = \arccos\left(-\frac{\rho\cos\varphi+\gamma\cos(\varphi-\delta)}{1+\gamma}\right), \quad 0 \leqslant \beta < \pi.$$

Equation (4) is valid for conditions:

$$|p| < 1, \quad \gamma \neq \infty, \tag{5}$$

which always exist. (3) Characteristic Peculiarities of the Distribution of Phase Angle Oscillations for the Aggregate of Fluctuating Signal, Noises, and Correlated Normal Interference., Equation (4) proves that the probability density $w(\varphi)$ is an even function of $s(\varphi)$. Designating β = arc cos (-s) in (4), it follows that:

$$s(\varphi) = a \cos \Delta\varphi \tag{6}$$

where

$$a = \frac{\sqrt{p^2 + 2p\gamma \cos\xi + \gamma^2}}{1+\gamma}, \quad \Delta\varphi = \varphi - \varphi_0, \quad \varphi_0 = \operatorname{arc\,tg} \frac{\gamma \sin\xi}{p + \gamma\cos\xi}.$$

The phase φ_0 has the physical meaning of mean value of a random phase angle φ. An interesting case is when $\xi = \pi$, $\gamma = p$, when the presence of a signal decorrelates the interference, and the phase angle distribution of received signals is uniform despite the presence of signal and correlated interferences, thus making impossible the measurement of the signal phase angle. The mean value φ_0 of phase angle of signal, noise, and correlated interference oscillations together does not equal the signal phase angle ξ. Denoting $\varphi_0 = \xi + \Delta\xi$, after some transformations:

$$\Delta\xi = -\operatorname{arc\,tg}\frac{p\sin\xi}{\gamma + p\cos\xi}, \qquad (7)$$

wherefrom it follows that $|\varphi_0| \leqslant |\xi|$.

Distribution of Phase Angle Oscillations in the Aggregate of Fluctuating Signal, Noise, and Correlated Noise Interference

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Caption to Fig. 2

Fig. 2. Probability density distribution w (φ) of phase angle φ of resulting signal and summary interference oscillations for summary interference correlation coefficient p = 0.9. Signal oscillation phase angle ξ equals for (a) 90°; (b) 0°; (c) 180°.

The presence of correlation between interferences acting in two channels of the phase radionavigation system, or appearance of noise correlation in two channels, which can be caused by characteristics of the system construction, leads to a systematic mistake in phase measurements of the received signals.

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ALEKSANDROV, M. S.

Transactions of the 6th Conf. on Probability Theory and Mathematical Statistics and of the Symposium on Distributions in Infinite-Dimensional Spaces held in Vil'nyus, 5-10 Sep '60. Vil'nyus Gospolitizdat Lit SSR, 1962. 493 p. 2500 copies printed

ALEKSANDROV, Mikhail Tikhonovich; BLINOV, Aleksandr Aleksandrovich; LITOVAL'TSEV, Petr Fedorovich; YANISON, Tamara Aleksandrovna[deceased]; BORISHCHEVA, M.M., red.; CHICHERIN, A.N., tekhn.red.

[Preparatory operations and printing on four-page rotation machines] Podgotovitel'nye operatsii i pechatanie na chetyrekhlistnoi rotatsionnoi mashine. Moskva, Gos.izd-vo "Iskusstvo," 1957. 30 p. (MIRA 10:12)
(Printing)

B

ALEKSANDROV, M.T., red.; BEREZKIN, N.A., red.; KAPITONOV, A.G., red.; STRAKHOVA, N.I., red.; KOZHEVNIKOVA, V.A., red.; CHEREMISOV, M.F., tekhn.red.

[Kuybyshev Province; its history and economy] Kuibyshevskaia oblast'; istoriko-ekonomicheskii ocherk. [Kuibyshev] Kuibyshevskoe knizhnoe izd-vo, 1957. 494 p. (MIRA 11:4)
(Kuybyshev Province)

Doc Med Sci

ALEKSANDROV, M. V.

Dissertation: "Histopathological Alterations of Woman Genitals in the Case of Reumatism."
23/6/50

Acad Med Sci USSR

SO Vecheryaya Moskva
Sum 71

ALEKSANDROV, M.V

ALEKSANDROV, M.V.

Correct use of cocoon box-driers. Tekst.prom. 16 no.7:59-60 Jl '56. (MLRA 9:8)

1. Upravlyayushchiy Tashkentskim oblastnym upravleniyem shelkovodstva.

(Silk manufacture)

ALEKSANDROV, M. V. Cand Agri Sci — (diss) "Natural Properties, Functions of the Membrane of the Cocoon of the Mulberry Silkworm and their Variability During Drying and Storage," Tashkent, 1960, 22 pp, 200 copies (Tashkent Agricultural Institute, "TashSKhI") (KL, 49/60, 127)

ALEKSANDROV, Mikhail Vasil'yevich, kandidat ekonomicheskikh nauk; SHEVELEV, M.L., redaktor; PEVZNER, A.S., redaktor; MEDVEDEV, L. Ya., tekhnicheskiy redaktor.

Organization of storage and packing in industry] Organizatsiia skladskogo i tarnogo khoziaistva promyshlennogo predpriiatiia. Moskva, Gos.izd-vo lit-r po stroitel'stvu i arkhitekture, 1955. 287 p. (MLRA 9:1)
(Warehouses)

ALEKSANDROV, M. V.

FILIPPOV, Boris Nikolayevich; ALKESANDROV, Mark Veniaminovich; MARUSHKO, Fedor Ivanovich; MARENKOVA, G.I., inzh., red.; MEDVEDEVA, M.A., tekhn.red.

[Experience in the regulation and maintenance of a centralized traffic relay system] Opyt regulirovki i soderzhaniia marshrutno-releinoi tsentralizatsii. Moskva, Gos.transp.zhel-dor.izd-vo, 1960. 28 p. (MIRA 13:3)

(Railroads--Signaling)

ALEKSANDROV, Mikhail Vasil'yevich, kand. ekonom. nauk, dots.; MILLER, Edmund Ernestovich, kand. tekhn. nauk, dots.; VOVK, A.G., spets. red.; ZAV'YALOVA, A.N., red.; BOBYLEVA, L.V., red.; PONOMAREVA, A.A., tekhn. red.

[Planning of continuous production processes] Planirovanie potochnogo proizvodstva. Moskva, Izd-vo Ekon.lit-ry, 1961. 178 p.
(MIRA 14:11)
(Factory management)

PONOMAREV, A.A., inzh.; ALEKSANDROV, M.V., inzh.

Graphical method for mechanical design of electric lines.
Elek. sta. 33 no.5:57-60 My '62. (MIRA 15:7)
(Electric lines—Overhead)

ALEKSANDROV, M.Ya.

ZASYAD'KO, A.F.; KUCHERENKO, V.A.; PAVLENKO, A.S.; GRISHMANOV, I.A.; FROLOV, V.S.; SHASHKOV, Z.A.; YEFREMOV, M.T.; SMIRNOV, M.S.; CHIZHOV, D.G.; NOVIKOV, I.T.; NOSOV, R.P.; ASEDCHENSKIY, A.N.; NEKRASOV, A.M.; LAVRENENKO, K.D.; TARASOV, N.Ya.; GABDANK, K.A.; LEVIN, I.A.; GINZBURG, S.Z.; ALEKSANDROV, A.P.; KOMZIN, I.V.; OZEROV, I.N.; SOSNIN, L.A.; BELYAKOV, A.A.; NAYMUSHIN, I.I.; INYUSHIN, M.V.; AGHKASOV, D.I.; RUSSO, G.A.; DROBYSHEV, A.I.; PLATONOV, N.A.; ZHIMERIN, D.G.; PROMYSLOV, V.F.; ERISTOV, V.S.; SAPOZHNIKOV, F.V.; KASATKIN, M.V.; ALEKSANDROV, M.Ya.; KOTILEVSKIY, D.G.

Fedor Georgievich Loginov; obituary. Elek.sta. 29 no.8:1-2 Ag '58. (MIRA 11:11)
(Loginov, Fedor Georgievich, 1900-1958)

22(1,2)

SOV/91-59-5-1/27

AUTHOR: Aleksandrov, M.Ya., Chairman

TITLE: Tasks of Energetics Trade-Union Organizations (Zadachi profsoyuznykh organizatsiy energetikov)

PERIODICAL: Energetik, 1959, Nr 5, pp 1-3 (USSR)

ABSTRACT: This editorial emphasizes the role of the Trade Union in ensuring the fulfillment of the tasks of further development of Soviet energetics envisaged in the Seven-Year Plan. The tasks of the Trade Union are to render help to the workers in improving their qualifications by attaching engineers and technicians to work brigades for consultations, to improve the work conditions, strengthen the idea of economic use of materials, introduction of automation and mechanization and ensure the fulfillment of the so called collective agreements between the workers and the employers. These tasks have been set by the Congress of the Trade Unions that took place in March 1959.

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SOV/97-59-5-1/27

Tasks of Energetics Trade-Union Organizations.

Ivanovo [illegible], Mi[illegible], [illegible], Sredne-Ural'sk, Kizelovskaya, Chelyabinsk GRESes, Dnepro-GES, [illegible] GES, Stalingradgidrostroy, Lenenergo, Mosenergo, Shatura and Kashira power plants are mentioned in the text. The article mentions that at the present time all Soviet energetic installations have 7-hour workday.

ASSOCIATION: TsK profsoyuza rabochikh elektrostantsiy i elektropromyshlennosti (The Central Commitee of the Trade Union of Workers of Power Plants and of Electric Industry)

Card 2/2

ALEKSANDROV, M.Ya.

Objectives of the trade unions of the peat industry. Torf.prom. 36 no.4:1-4 '59. (MIRA 12:9)

1. TSentral'nyy komitet profsoyuza rabochikh elektrostantsiy i elektropromyshlennosti.
(Peat industry)

ALEKSANDROV, M.Ya.

Rural electrification is an important assignment for power engineering workers and workers in the field of electric machinery engineering. Energetik 9 no.4:1-3 Ap '61. (MIRA 14:8)

1. Predsedatel' TSentral'nogo komiteta profsoyuza rabochikh elektrostantsiy i elektropromyshlennosti.
(Electrification)

ALEKSANDROV, Mikhail Zinov'yevich

[Aid for the cooperative state purchasing agent] V pomoshch' kooperativnomu zagotoviteliu. Moskva, Izd-vo TSentrosoiuza, 1959. 238 p. (MIRA 14:7)

(Produce trade)

S/025/60/000/009/008/009
A/166/A029

AUTHOR: Aleksandrov, N.

TITLE: A Zoo in Space

PERIODICAL: Nauka i zhizn', 1960, No. 9, pp. 77 - 78

TEXT: The second Soviet space ship contained dogs, black and white mice, rats, plants, ~~maize, wheat, pea and~~ onion seeds, bacteria, preserved human and rabbit skin tissues and human tumor cells to determine the effects of space travel and cosmic radiation on a cross-section of the earth's flora and fauna. Since cosmic radiation turns the fur of black mice grey, the efficacy of the ship's radiation screening system could be gaged from this phenomenon. Studies of the animals' bone marrow would also reveal the effects of space flight on their hemopoietic system, which has a direct bearing on future manned space travel. The ship contained two laboratory rats of known higher nervous activity and with conditioned reflexes induced before the flight. Observations of these rats will increase our knowledge of the effects of space flight on the higher nervous activity. Bacteria were included for

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A Zoo in Space

two reasons: a) the rapid succession of their generations makes it easier to study the physical and chemical effects of cosmic radiation on them; and b) it was important for the health of future astronauts to determine the effects of space flight on those species of bacteria which live on the surface of the body (staphylococci) or in the intestine (Escherichia coli). The space ship, therefore, contained these and other species of bacteria. For genetic studies the ship contained fruit flies (Drosophila) because they multiply rapidly and readily change their genetic features under radiation and other factors of the external environment. Ray fungi (Actinomyces), the source of many antibiotics, were also included as test objects. Important tests were also made with spiderwort (Tradescantia) which continued to flourish both during and after the flight. Observations of its future development will give valuable data of the effects of space on plants. The ship also contained Chlorella, which could be the source of very nourishing food for future astronauts. In addition, it absorbs CO_2 and has a phenomenal oxygen--producing capacity (producing 50 times its own volume in oxygen during 1 hour).

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S/025/60/000/012/001/006
A166/A026

AUTHOR: Aleksandrov, N.

TITLE: A Television Eye in Space

PERIODICAL: Nauka i zhizn', 1960, No. 12, pp. 2 - 6

TEXT: The Soviet space ship with Strelka and Balka aboard was equipped with both radiotelemetric and television apparatus for observing the dogs. For measuring the dogs' respiration a variable resistance was strapped onto the dog's chest so that expansion and deflation of the chest varied the resistance and converted respiration into a varying voltage. The air temperature in the cabin was measured by a thermocouple. The physiological data measured were: arterial pressure, electrocardiogram, heart tones, respiration rate, body temperature and motor activity, plus data on barometric pressure, temperature, humidity and composition of the air in the pressurized cabin. The data was recorded on tape and transmitted back to Earth whenever the ship came within radio visibility. The television system was composed of two miniature cameras, the one mounted on the hatch of the container and giving a full face picture of Belka, the other giving a profile picture of Strelka through a side port in the cabin. Television coverage began before take-

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S/025/60/000/012/001/006
A166/A026

A Television Eye in Space

-off and showed the animals' behavior before take-off, during the transition from increased gravity to weightlessness and during the orbits of the Earth when the ship was in contact with a terrestrial receiving station. The cameras and additional illumination were operated upon commands from the Earth. The cameras were switched on in turn and a changeover from one camera to another during transmission was possible. On Earth the television transmission was recorded on film, which also registered the time intervals (to an accuracy of 1 frame) synchronous with the time intervals reproduced on the telemetric tapes. During take-off the engine noise upset the dogs. After this increasing gravitation held them motionless. Radiotelemetric readings showed that pulse and respiration rose. Before launching, Belka had a pulse of 75 and a respiration rate of 24, Strelka - rates of 90 and 60. During the active section of the flight the pulse rate rose to 150 - 160 and respiration in one of the dogs rose to 240. Upon transition to weightlessness the pulse and respiration began to return to normal and the animals fed. The author points out that television control will assist in research towards manned space flight and will also be invaluable in extraatmospheric space observatories, transmitting astronomical, astrophysical, meteorological and geophysical data back to Earth. There are 3 figures.

Card 2/2

ALEKSANDROV, N., ZAVALISHIN, F.

Soil Conservation

Making ridges on slopes for retention of run-off water, Kolkh. proizv., 12, No. 7, 1952

Monthly List of Russian Accessions, Library of Congress October 1952, UNCLASSIFIED.

PUSHKOV, I.; ALEKSANDROV, N.

Hidden potentialities for the growth of output at apatite mines.
Sots.trud. no.5:60-62 My '56. (MLRA 9:8)
(Apatite) (Mining engineering)

ALEKSANDROV, N.

"Following the Methods of Soviet Medical Workers." p. 4,
(ZDRAVEN FRONT, No. 41, Oct. 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

ALEKSANDROV, N., inzhener.

Organizing the transportation of cotton wool. Avt.transp. 34 no.9: 8-9 S '56. (MLRA 9:11)
(Cotton--Transportation)

ALEKSANDROV, N.; BELINOVICH, M.

Assembly-line construction of a block. Stroitel' no.11:7-8 '58. (MIRA 11:12)

1. Upravlyayushchiy trestom No.27 Mytishchestroy (for Aleksandrov).
2. Glavnyy inzhener tresta No.27 Mytishchestroy (for Belinovich).
(Apartment houses) (Assembly-line methods)

ALEKSANDROV, N.

Making prestressed beams in construction yards equipped with concreting combines. Stroitel' no.5:23 My '60. (MIRA 13:9)
(Girders)

ALEKSANDROV, N., inzh.

Modifying grain combines for earcorn threshing. Muk.-elev. prom. 27 no.11:27-28 N '61. (MIRA 14:12)

1. Ministerstvo zagotovok RSFSR.
(Corn(Maize))
(Threshing machines)

ALEKSANDROV, N.

Review of activities of branches of the All-Union Society of Obstetricians and Gynecologists during 1958. Akush.i gin. 35 no.6:100-114 N-D '59. (MIRA 13:4)
(OBSTETRICS)
(GYNECOLOGY)
(SOCIETIES MEDICAL)

ALEKSANDROV, N.; PODDUBNAYA, T.; TISHCHENKO, N.

White Russian Republic Scientific and Practical Conference of Oncologists. Zdrav. Bel. 8 no.4:63-65 Ap '62. (MIRA 15:6)
(ONCOLOGY--CONGRESSES)

ACCESSION NR: AN3001206 S/9022/63/000/140/0002/0002

AUTHOR: Aleksandrov, N. (Engineer)

TITLE: Celestial guide

SOURCE: Sovetskaya Rossiya, 15 Jun 63, p. 2

TOPIC TAGS: The statement regarding the orientation and stabilization systems of space vehicles

TEXT: The author makes the following statements regarding the orientation and stabilization systems of space vehicles.

"Soviet scientists and designers grappled successfully with this complex scientific and technical problem in 1959, with the launching of the interplanetary station to the moon. Since that time not a single one of our space ships has been launched without such equipment on board....

"On the Vostok ships [orientation] is carried out automatically in

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relation to the Sun and manually in relation to the Earth. In both systems, the sensitive elements are optical and gyroscopic transducers....

"In manual control, the commonaut can utilize the optical system 'Vzor,' a special control stick, angular-velocity transducers, and other devices. The optical orientator is located on one of the cabin portholes. It is so constructed that when the ship is properly oriented, the commonaut sees an image of the horizon in the shape of a circle. The portion of the Earth's surface located below [the ship] is visible in the central section of the porthole.

"The position of the longitudinal axis of the ship is determined by the observations of the 'run' of the Earth's surface in the vision field of the orientator. If the direction of the 'run' coincides with the course line, it means that the ship is properly oriented. The appearance of deviations indicates the need to correct the ship's attitude. In this case the commonaut, [by] deflecting the control stick to the side required, sends command signals to the sensing elements of the orientation system. Signals

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from them are sent to the rocket engine -- to the rudder nozzles, from which a jet of gas is issued.
SPAO - Item no. 17

DATE ACQ: 18Jun63

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Pz-6/Paa-2/Pab IJP(c) JHB/TT/WG/JD/GW

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121
B

AUTHOR: Aleksandrov, N.

TITLE: A ray which penetrates the future

SOURCE: Nauchno-tekhnicheskiye obshchestva SSSR, no. 8, 1964, 41-43

TOPIC TAGS: laser, semiconductor laser, relativity theory, gallium arsenide laser, laser communication system, laser clock

ABSTRACT: The Lenin Prize for 1964 was presented to Associate Member of the AN SSSR Bentsion Vul and a large group of coworkers for the development of a gallium-arsenide semiconductor laser. The semiconductor laser is almost 100% efficient and its micro-miniature size holds great promise for use in computers to achieve speeds of tens of billions of operations per second. Direct communication over distances of several light years is considered possible with the use of lasers. Satellites carrying a laser could be easily seen and accurately tracked both day and night. Applications of lasers in radio, telephone and television communications and in chemistry are mentioned. Quantum techniques make possible a construction of clocks accurate to one second in ten thousand years which could be used to conduct relativity experiments. Use of the laser beam as a

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metal working and surgical tool is mentioned. Long distance, high-efficiency transmission of energy by laser beam, especially in space where the absorbing and scattering effects of the atmosphere are avoided, is considered absolutely essential in the conquest of space. Direct conversion of matter into energy without explosion is possible using quantum devices. Quantum engines may utilize solar energy during space flight. Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: EC

NO REF SOV: 000 OTHER: 000

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ALEKSANDROV, N.

The Soviet Union's sixth five-year plan for economic development.
Prof.tekh.obr. 13 no.4:29-34 Ap '56. (MLRA 9:7)
(Russia--Economic policy)

ALEKSANDROV, N., LATOV, B., POGOSTIN, S., PUSHKOV, I.

Regulation of work norms and wages of workers in the chemical industry. Sots. trud no. 7:33-39 Jl '58. (MIRA 11:8)
(Chemical industries--Production standards)

AIEKSANDROV, N., kand. sel'skokhozyaystvennykh nauk; BUTKEVICH, B., nauchnyy sotrudnik.

The cost of labor has decreased threefold. Nauka i pered. op. v sel'khoz. 9 no.2:21-22 F '59. (MIRA 12:3)
(Collective farms--Costs)

ALEKSANDROV, N.

Good results. Sots. trud 5 no.6:119-122 Je '60. (MIRA 13:11)
(Bashkiria--Chemical industries) (Wage payment systems)
(Hours of labor)

VASIL'YEV, A.; GRINIK, G.; ALEKSANDROV, N.

Not in seven years but in four and a half. Prom.koop. 14 no.4: 13-18 Ap '60. (MIRA 13:6)

1. Predsedatel' pravleniya promyslovoy arteli "Druzhba", g. Kanash Chuvashskoy ASSR (for Vasil'yev). 2. Tekhnoruk promyslovoy arteli "Druzhba" g. Kanash, Chuvashskoy ASSR (for Grinik). 3. Sekretar' partiynoy organizatsii promyslovoy arteli "Druzhba," g. Kanash, Chuvashskoy ASSR (for Aleksandrov).
(Kanish--Manufactures)

ALEKSANDROV, N.

Issuing bonuses tc workers in the chemical industry. Sots. trud 6 no. 2:54-58 F '61. (MIRA 14:2)
(Chemical industries) (Bonus system)

ALEKSANDROV, N., polkovnik

Training unit officers in administrative problems. Tyl i snab.Sov. Voor.Sil 21 no.1:23-27 (MIRA 14:6)
(Russia--Army--Officers)

ALEKSANDROV, N., polkovnik

Initiative decides the success of things. Tyl i snab. Sov. Voor. Sil 21 no.10:40-43 O '61. (MIRA 15:1)
(Military posts--Repairing)
(Russia--Army--Military life)

ALEKSANDROV, N.

Adapting the S-6 combine for threshing castor beans. Muk.-elev. prom. 29 no.2:30 F '63. (MIRA 16:8)

1. Vserossiyskoye ob"yedineniye khleboproduktov.
(Castor bean) (Threshing machines)

ALEKSANDROV, Nikolay Aleksandrovich; BURLAKA, P.N., red.; MARTYNOVA, V.A., mlad. red.; VAS'KINA, R.S., tekhn.red.

[Washed by warm seas; from notebooks] Moriami teplymi omytaia; iz zapisnykh knizhek. Moskva, Geografgiz, 1963. 86 p. (MIRA 17:3)

ALEKSANDROV, N. A.

ALEKSANDROV, N. A. Equine Rhinoestrosis.

Source: Veterinariya; 22; 6; June 1945 uncl
TABCON

ALEKSANDROV, N. A.

ALEKSANDROV, N. A. Verminous abcesses of internal organs as a cause of chronisepsis of horses.

So: Veterinariya; 23; 2-3; February/March 1946; Uncl.
TABCON

ALEKSANDROV, N. A. PA 67T75

USSR/Medicine - Anemia, Infectious Feb 1943
Medicine - Piroplasmosis

"The Combined Course of Piroplasmosis and Equine Infectious Anemia," N. A. Aleksandrov, 3 pp

"Veterin" No 2

Notes the variable nature of the course of the disease in relation to the seasons. Spring appears to be the season during which this disease is most noticeable. Graph shows the rise and fall of cases.

67T75

ALEKSANDROV, N.A.

Methods of controlling Haemosporidia infections. Veterinariia 32 no.3:47-50 Mr '55. (MLRA 8:4)
(HAEMOSPORIDIA) (PARASITES--DOMESTIC ANIMALS)

ALEKSANDROV, M.A., Cand Vet Sci—(diss) "Lymphoid reaction of the blood and possibilities of its use in infectious anemia of horses." Tbilisi, 1958. 30 pp with ill. (Min Vet Acad of the Min of Agr USSR), 100 copies (KL,44-58,124)

ALEKSANDROV, N.A., vetvrach

Increased salt content of feed is a factor inducing pasteurellosis in swine. Veterinariia 35 no.12:61-62 D '58. (MIRA 11:12)

(Salt--Physiological effect) (Swine plague)

ALEKSANDROV, N.A., veterinarnyy vrach (g.Tbilisi)

Solution of trypaflavine for treating coccidiosis in rabbits.
Veterinariia 36 no.10:30-31 O '59. (MIRA 13:1)
(Acriflavine) (Coccidiosis)

ALEKSANDROV, N. A., MAKHOV, G. K. and CHERNETSKIY, T. I. (Veterinary Surgeons)

"About certain characteristics of the swine foot and mouth disease"

Veterinariya, Vol. 38, no. 7, July 1961, pp. 42

ALEKSANDROV M. A. (Candidate of Veterinary Sciences)

"Concerning laboratory diagnosis of swine pasteurellosis."

Veterinariya, Vol. 38, No. 12, December 1961, P. 61.

ALEKSANDROV, N.A., veter. vrach; MAKHOV, G.K., veter. vrach; CHERNETSKIY, T.I., veter. vrach

Some characteristics of foot-and-mouth disease in swine. Veterinariia 38 no.7:42-44 Jl '61. (MIRA 16:8)

(Foot-and-mouth disease)
(Swine--Diseases and pests)

ALEKSANDROV, N.A., kand. veter. nauk

Swine plague. Veterinariia 39 no.10:35-37 O '62. (MIRA 16:6)

(Swine plague)

ALEKSANDROV, N.A.; GEFEN, N.Ye.; GAPOCHKO, K.G.

Aerosol immunization with dried powder vaccines and anatoxins. Report No.9: Study of the effectiveness of the aerosol method of revaccination with powdered Brucella vaccine. Zhur. mikrobiol., epid. i immun. 40 no.2:42-48 F '63. (MIRA 17:2)

ALEKSANDROV, N.A.

DURASOV, P.I. [deceased], kandidat tekhnicheskikh nauk; MIL'MAN, B.S., kandidat tekhnicheskikh nauk; ALEKSANDROV, N.A., inzhener.

Heat-resistant cast iron. Standartizatsiia no.2:58-61 Mr-Ap '57. (MIRA 10:6)

1. TSentral'nyy nauchno-issledovatel'skiy institut tyazhelogo mashinostroyeniya.

(Cast iron--Standards)

SOV/139-58-6-10/29

AUTHORS: Popov, L.Ye. and Aleksandrov, N.A.

TITLE: Dependence of Flow Stress in Nickel on Deformation Velocity and Temperature (Zavisimost' napryazheniya techeniya nikelya ot skorosti i temperatury deformatsii)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, 1958, Nr 6, pp 66-72 (USSR)

ABSTRACT: Two series of experiments were carried out, in an apparatus constructed by L.I.Vasil'yev, on nickel N1; one series at deformation velocities of 1440, 350, 70, 38, 26, 8.2 and 4.8% per hour, all at a temperature of 414°C, the other series at a constant deformation velocity of 51% per hour and at temperatures varying from 350 to 473°C. Stress-deformation curves of both sets are reproduced. Curves of flow stress against log velocity and against T1 (T = temperature) indicate that the activation energy is about 66000 cal/mol. Thanks are expressed to Professor M.A.Bol'shanina for discussion of results. There are 5 figures and

Card 1/2

SOV/139-58-6-10/29

Dependence of Flow Stress in Nickel on Deformation Velocity and Temperature

15 references of which 3 are Soviet and 12 English.

ASSOCIATION: Sibirskiy Fiziko-Tekhnicheskiy Institut pri Tomskom Gosuniversitete imeni V.V.Kuybysheva (Siberian Physico-Technical Institute, Tomsk University imeni V.V.Kuybyshev)

SUBMITTED: 14th April 1958

Card 2/2

POPOV, L.Ye.; ALEKSANDROV, N.A.

Effect of the rate and temperature of deformation on flow stresses in nickel. Izv.vys.ucheb.zav.; fiz. no.6:66-72 '59.

(MIRA 12:4)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete im. V.V. Kuybysheva.

(Nickel--Testing)

69429

18,8200 S/139/60/000/01/003/041
E073/E335

AUTHORS: Popov, L.Ye. and Aleksandrov, N.A.

TITLE: Sudden Deformation in Alloys of the System Nickel-chromium

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1960, Nr 1, pp 16 - 22 (USSR)

ABSTRACT: One of the features of alloys in which transformations take place is the nonuniform character of the deformation at temperatures below the critical transformation temperature. In the temperature range in which the deformation is nonuniform there are ahomalies in the speed and temperature dependence of the mechanical properties. It is reasonable to assume that there is a close relation between these phenomena and therefore study of the nature of sudden deformation is of interest from the point of view of elucidating the mechanism of strengthening of alloys as a result of transformations. In earlier investigations of the speed and temperature dependence of the mechanical properties of alloys containing solid solutions of the system Ni-Cr, it was found that within a large range of temperatures the deformation occurs in

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Sudden Deformation in Alloys of the System Nickel-chromium

jumps (Ref 9). In the present work, this sudden jumpy deformation was investigated in detail for an alloy of the following composition: Cr, 16.6%, Si 0.34%, C 0.014%, S 0.03%, Fe 0.4%, rest Ni. The 1 ± 0.02 mm dia, 85 mm long specimens were quenched in water after soaking for 2 hours at 950 °C in vacuum; the average grain diameter was 0.02 mm. The deformation was at the rate of 38% per hour on a tensile test machine. The temperature was measured by means of chromel-alumel thermocouple and the flow curves were recorded photographically. The continuous deformation changes into sudden deformation at temperatures above 150-200 °C; the higher the temperature the lower is the degree of deformation at which the deformation becomes sudden. Thus, at 153 °C the continuous deformation changes into sudden deformation when the reduction reaches approximately 20%, at 270 °C this change occurs for a reduction of 5%, at 300 °C it occurs for a reduction of 0.1-0.2% in excess of the elastic deformation, whilst at 400 to 500 °C the sudden deformation begins immediately after the elastic one.

Card2/6

Sudden Deformation in Alloys of the System Nickel-chromium

The indicator diagrams taken at 160 to 230 °C (Figure 1) show that the changes in the load with increasing degree of strain become nonuniform. In individual sections of the diagram the inclination angle relative to the abscissa is much larger than the average steepness; the strain with decreasing load lasts 2 to 3 seconds. At 300 to 500 °C the extension diagram (Figure 2) consists of sharp rises and appreciable drops in the load; at 300 °C the duration of the drop in the load is several tenths of a second whilst at temperatures above 300 °C the drop in the load lasts such a short time that it could not be determined. In the temperature range 620 to 640 °C the jumps are observed from the very beginning of the deformation but even at low degrees of deformation the jumpy deformation is superseded by a continuous deformation with small individual jumps (Curve 1, Figure 3) or without any jumps at all; at temperatures above 650 °C the deformation is on the whole continuous. The results indicate that in the temperature range between 200 and 600 °C a process takes

Card3/6 place which leads to strengthening of the alloy. This

Sudden Deformation in Alloys of the System Nickel-chromium

temperature range largely coincides with the range of temperatures (300 to 700 °C) in which anomalous temperature dependence of the physical properties is observed for Ni-Cr solid solution alloys. Data in the literature (Refs 7,8) relating to the temperature dependence of the hardness and microhardness of similar alloys in the temperature range 300 to 700 °C indicate that a strengthening process does occur and that this process is diffusional in character. The same process causes the jumpy character of the deformation of the alloy, as can be seen from the fact that the temperature range in which jumpy deformation takes place coincides with the temperature range in which the flow stresses are only slightly dependent on the temperature. The same process which brings about nonuniform deformation also leads to an increase of the electrical resistance. Nonuniform deformation is accompanied by an increase and uniform deformation by a decrease, in the electrical resistance. The rate of increase in the nonuniformity of deformation increases with increasing temperature, which indicates that the process is diffusional in character.

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69429
S/139/60/000/01/003/041
E073/E335

Sudden Deformation in Alloys of the System Nickel-chromium

An increase in the electrical resistance during heating of hardened nickel alloys (nickel solid solutions) is due to the formation in the alloy of nonuniformities of the short-range order type (Ref 8). Therefore it can be assumed that jumpy deformation of the investigated alloy and the temperature dependence of the flow stresses are due to the formation of a short-range order in the crystal lattice. Plastic deformation accelerates this process; the same effect of increase in the electrical resistance is reached hundreds and thousands of times faster during deformation than in the case of annealing at the same temperature without applying any load. The fact that deformation at low temperatures leads to a drop in the electrical resistance indicates that the short-range order can be disrupted by means of plastic deformation. On the basis of these results the mechanism of a jumpy deformation can be considered as a superposition of the diffusion process of formation of a short-range order and the process of disruption of this order as a result of plastic deformation.

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S/139/60/000/01/003/041
E073/E335

Sudden Deformation in Alloys of the System Nickel-chromium

There are 5 figures and 11 references, 3 of which are English and 8 Soviet.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennyy universitete imeni V.V. Kuybysheva (Siberian Physico-technical Institute, Tomsk State University imeni V.V. Kuybyshev)

SUBMITTED: March 24, 1959

Card 6/6

ALEKSANDROV, N.A.

Rapid reconstruction of blast furnace plants. Prom.stroi. 38 no.3:33-38 '60. (MIRA 13:6)

1. Zamestitel' upravlyayushchego trestom Tuluglestroy.
(Blast furnaces)

PHASE I BOOK EXPLOITATION SOV/4502

Akademiya nauk SSSR. Nauchnyy sovet po probleme zharoprochnykh splavov

Issledovaniya po zharoprochnym splavam, tom 6 (Investigations of Heat-Resistant Alloys, Vol. 6) Moscow, 1960. 319 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A. A. Baykova. Nauchnyy sovet po probleme zharoprochnykh splavov.

Editorial Board: I. P. Bardin (Deceased) Academician, G. V. Kurdyumov, N. V. Ageyev, Corresponding Member, Academy of Sciences USSR (Resp. Ed.), I. A. Oding, I. M. Pavlov, and I. F. Zudin, Candidate of Technical Sciences; Ed. of Publishing House: V. A. Klimov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This book is intended for research workers in the field of physics of metals and for metallurgists, particularly those working on heat-resistant alloys.

COVERAGE: This collection of 45 articles deals with various problems in the production of heat-resistant alloys. Special attention is paid to the mechanisms of deformation of such metals as aluminum, copper, iron, and nickel. Various defects and failures of metals are analyzed, and means for increasing the heat resistance and plasticity are described. Among the special problems discussed are: electrolytic conductivity of iron-aluminum alloys in the solid state; the mobility of atoms in nickel-iron alloys, depending upon defects of their crystalline structure; the kinetics of change in isolated pores; the irreversible thermal transformation of solid bodies, etc. No personalities are mentioned. References follow each article.

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ALEKSANDROV, N.A.

POPOV, L.Ye.; BOL'SHAKOVA, M.A.; ALEKSANDROV, N.A.

Relation between the phenomenon of abrupt deformation and the anomalous velocity dependence of resistance to deformation. Fiz.tver.tela 4 no.10:2972-2974 O '62. (MIRA 15:12)

1. Tomskiy gosudarstvennyy universitet imeni V.V.Kuybysheva.
(Deformations (Mechanics)) (Strength of materials)

POPOV, L. Ye.; ALEKSANDROV, N. A.

Regularities of jump-type deformations. Fiz. met. i metalloved. 14 no.4:625-631 O '62. (MIRA 15:10)

1. Sibirskiy fiziko-tekhnicheskiy nauchno-issledovatel'skiy institut.

(Deformations(Mechanics))

SUKHOVAROV, V.F.; ALEKSANDROV, N.A.; KUDRYAVTSEVA, L.A.

Nature of the deformation aging of nickel. Fiz.met.i metalloved. 14 no.6:895-898 D '62. (MIRA 16:2)

1. Sibirskiy fiziko-tekhnicheskiy institut.
(Nickel—Hardening)

POPOV, L.Ye.; ALEKSANDROV, N.A.

Conditions for the onset of creep jumps and the lower temperature of the region of occurrence. Izv.vys.ucheb.zav.;fiz.no.2:125-132 '63.
(MIRA 16:5)

1. Sibirskiy fiziko-teknicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

(Deformations (Mechanics)) (Creep of metals)

L 12477-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/HW-2
S/185/63/008/003/005/009

AUTHOR: Bol'shanina, M. A., Popov, L. Ye. and Aleksandrov, N. A.

TITLE: Characteristics of jump deformation in nickel alloys with close-order

PERIODICAL: Ukrainskyy Fizychnyy Zhurnal, v. 8, no. 3, 1963, 363-369.

TEXT: Deformation of many alloys in definite temperature interval and at different deformation rates occurs in a jump fashion. For investigation of the process which lies at the basis of jump flow it is necessary to conduct a detailed study of patterns of this phenomenon. This article investigates the temperature-deformation rate of Ni alloy with 17.5% Cr. It is shown that the dependence of the minimum degree of deformation ε min on temperature and the rate of deformation on temperature and the rate of deformation is described by the equation

$$\varepsilon \text{ min} = \text{const} \cdot \nu^{\ell} \cdot \dot{\varepsilon} \cdot \ell^{-U/rt}$$

where ν^{ℓ} is the strengthening coefficient of the alloy at ε min; m=3/2; U=30 kcal/mole. A qualitative explanation is given for the characteristic of transition from jump to gradual type deformation at elevated temperatures. The article contains 3 figures and a 27-item bibliography.

Association: Siberian Technical Physics Inst., Tomsk.

Card 1/2

L 12474-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/HW-2
S/185/63/008/003/008/009

57
56

AUTHOR: Korotayev, A. D. and Aleksandrov, N. A.

TITLE: Effect of close order on the temperature dependence of flow stress of nickel base alloys

PERIODICAL: Ukrains'kyy Fizychnyy Zhurnal, v. 8, no. 3, 1963, 376-381.

TEXT: The article investigates the effect of close order in Ni-Fe (80% Ni + 20% Fe), and also in Ni_3Fe alloys with addition of 2 atomic % of Cr or Mo. on the temperature dependence flow of stresses under tensile stresses. In all of these alloys in the course of relatively short time annealing below 500° C, short ordering occurs. It was shown that in Ni_3Fe + 2% Cr and in Ni_3Fe + 2% Mo the resistance to deformation changes nonmonotonously with change in deformation temperature. At $T > 300^\circ$ C the ordinary decrease in the flow stress is followed by an abrupt rise with maximum at $T \approx 380 - 400^\circ$ C. In the temperature anomalous region of mechanical properties the flow curves are irregular and the electrical resistance increases considerably. Preliminary deformation sharply changes the nature of temperature dependence of the mechanical properties -- there is no temperature dependent anomaly observed. The processes responsible for the increase of resistivity are

Card 1/2

L 12474-63 S/185/63/008/003/008/009

Effect of close order...

sharply decreased. Conclusions are drawn with respect to characteristics of the deformation of alloys as well as in the effect of increase of resistivity. It is believed that this phenomena is caused by short-range order processes (K-state) in alloys. The article contains 2 figures and a 24 item bibliography.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut (Siberian Institute of Technical Physics, Tomsk.)

Card 2/2

POPOV, L.Ye.; BUTKEVICH, L.M.; KOZHEMYAKIN, N.Ye.; ALEKSANDROV, N.A.

Upper temperature boundary in the phenomena of jumplike flow in alloys and solid solutions. Fiz. met. i metalloved. 16 no. 3:457-462 S '63. (MIRA 16:11)

1. Sibirskiy fiziko-tekhnicheskiy institut.

POPOV, L.Ye.; ALEKSANDROV, N.A.

Nature of the abrupt deformation of nickel-chromium alloys. Izv. vys. ucheb. zav.; fiz. no.6:99-103 '63. (MIRA 17:2)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

ACCESSION NR: AT4013937 S/2659/63/010/000/0123/0130

AUTHOR: Korotayev, A. D.; Malov, Yu. V.; Aleksandrov, N. A.

TITLE: Investigation of the anomalous temperature dependence of creep stress in nickel-base alloys

SOURCE: AN SSSR. Institut metallurgii. Issledovaniya po zharoprochny*m splavam, v. 10, 1963, 123-130

TOPIC TAGS: nickel alloy, nickel iron molybdenum alloy, creep stress temperature dependence, creep stress, iron containing alloy, molybdenum containing alloy

ABSTRACT: The aim of this paper was to investigate the influence of high temperature annealing in hydrogen on the temperature functions and the type of alloy deformation. The influence of preliminary deformation in these properties was also investigated. An experimental estimation of the effect of introducing Cottrell and Suzuki "atmospheres" for strengthening NiFeMo alloys was attempted. The relationships between electrical resistance, mechanical properties and deformation of alloys at various temperatures were studied. As shown by Figs. 1 and 2 in the Enclosure, annealing in hydrogen did not lead to any abnormal features at low temperatures. After considering all available information, the authors conclude that the Cottrell and Suzuki "atmospheres" should be investigated

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ACCESSION NR: AT4013937

further. The tempered samples showed the presence of the K-state. This is probably due to formation of a close order and seems to contradict the assumption of a relationship between the K-state and segregations. Orig. art. has: 4 figures.

ASSOCIATION: Institut metallurgii AN SSSR (Metallurgical Institute AN SSSR)

SUBMITTED: 00	DATE ACQ: 13Mar64	ENCL: 02
SUB CODE: ML	NO REF SOV: 017	OTHER: 015

Card 2/4

ACCESSION NR: AT4013937

ENCLOSURE: 01

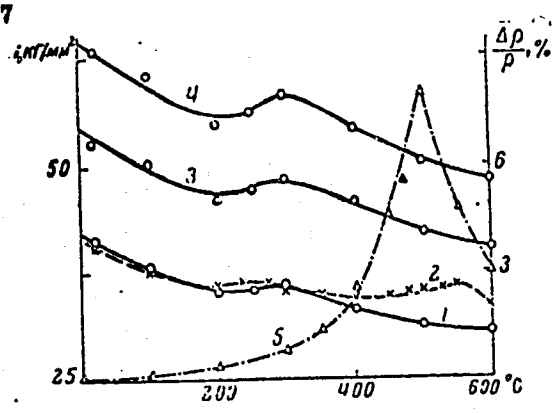

Fig. 1. Temperature dependence of creep stress and the relative change in electrical resistance of NiFeMo alloy (not annealed in hydrogen). Deformation rate = 42%/hour.

1 - $\dot{\varepsilon}$ = 6%; 2 - ditto, with deformation rate of 6%/hour; 3 - ε = 12%; 4 - ε = 18%; 5 - $\Delta\rho/\rho$.

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ACCESSION NR: AT4013937

ENCLOSURE: 02

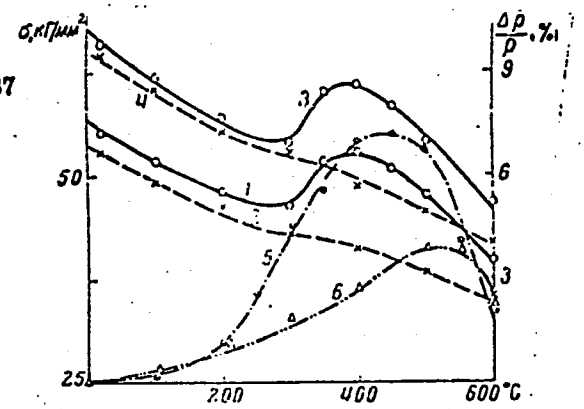

Fig. 2. Temperature dependence of creep stress and the relative change in electrical resistance of NiFeMo alloy (annealed in hydrogen).

1 - after tempering, $\varepsilon = 6\%$; 2 - ditto, with preliminary deformation; 3 - after tempering, $\varepsilon = 10\%$; 4 - after tempering, $\varepsilon = 12\%$, with preliminary deformation; 5 - ditto, without preliminary deformation; 6 - $\Delta\rho/\rho$ (after tempering with preliminary deformation).

Card 4/4

POPOV, L.Ye.; BUTKEVICH, L.M.; ALEKSANDROV, N.A.

Role of the viscous motion of a dislocation in the temperature-dependent resistance to deformation in solid solutions of substitution. Izv. vys.ucheb.zav.;fiz.no. 2:126-130 '64.
(MIRA 17:6)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

ALEKSANDROV, Nikolay Grigor'yevich, professor; KISELEV, Yakov L'vovich, kandidat yuridicheskikh nauk; STAVTSEVA, Antonina Il'inichna, kandidat yuridicheskikh nauk; SAKHAROVA, I.M., redaktor; KOSAREVA, Ye.N., tekhnicheskiy redaktor

[Labor rights of workers and employees in the U.S.S.R.; in questions and answers] Trudovye prava rabochikh i sluzhashchikh v SSSR; v voprosakh i otvetakh. Moskva, Gos. izd-vo iurid. lit-ry, 1956. 197 p. (MIRA 10:1)
(Labor laws and legislation)

MIKHAYLENKO, Nikolay Terent'yevich; ALEKSANDROV, N.G., doktor yurid. nauk, prof., nauchn. red.; RADVOGIN, A.V., red.; TIKHONOVA, L.I., tekhn. red.

[Consolidation of socialist labor discipline in the period of the large-scale building of communism; based on materials from Kirghizistan] Ukreplenie sotsialisticheskoi distsipliny truda v period razvernutogo stroitel'stva kommunizma; na materialakh Kirgizii. Frunze, Kirgizskii gos.univ., 1962. 154 p. (MIRA 17:1)

ALEKSANDROV, N. G.: Master Med Sci (diss) -- "Some new possibilities for forensic-medical expertise of the hair". Samarkand, 1958. 18 pp (Samarkand State Med Inst im Acad I. P. Pavlov), 200 copies (KL, No 4, 1959, 130)

ALEKSANDROV, N.G., doktor yuridicheskikh nauk

Labor and law. Okhr. truda i sots. strakh. 4 no.10:19-20 O '61.
(MIRA 14:12)

(Labor laws and legislation)

KHOLODOK, Ye.D.; NIKIFOROV, I.V.; MAYSURADZE, L.I.; ALEKSANDROV, N.I.; BALASHOV, V.I.

New methods for gravity surveying under the conditions of a dense forest. Sbor.luch.rats.predl. pt. 2:4-5 '63. (MIRA 17:5)

1. Ukhtinskoye geologicheskoye upravleniye.

SOYBEL', B.I.; ALEKSANDROV, N.G.

Sudden deaths from diseases of the cardiovascular system in Andizhan Province. Kardiologiia 5 no.1:86-87 Ja-F '65.
(MIRA 18:9)

1. Kafedra sudebnoy meditsiny (zav.- kand. med. nauk V.A. Kazhev) Andizhanskogo meditsinskogo instituta.

ALEKSANDROV, N.I.; BARTEL'S, A.V.

Survey of activities of branches of the All-Union Scientific Society of Obstetricians and Gynecologists in 1952. Akush.i gin. no.1:79-92 Ja-F '54. (MLRA 7:6)
(Gynecology) (Obstetrics)

ALEKSANDROV, N.I.

Survey of the activities of the Branches of the All-Union Scientific Society of Obstetricians and Gynecologists for 1953. Akush. i gin. no.5:81-91 S-O '55. (MLRA 9:1)

(SOCIETIES, MEDICAL
All-union Scientific Societies of Obstetricians and Gynecologists, activity review)

ALEKSANDROV, N.I.

Survey of activities of branches of the All-Union Scientific Society of Obstetricians and Gynecologists during 1954. Akush. i gin. no.6:75-87 N-D '55 (MLRA 9:6)

(GYNECOLOGY--SOCIETIES) (OBSTETRICS--SOCIETIES)

ALEKSANDROV, N.

Collected works of the Second Obstetrical and Gynecological Hospital (Prof. Frantisek Horalek), Brno (Czechoslovakia). Reviewed by N.Aleksandrov. Akush. i gin. 32 no.4:90-91 Jl-Ag '56. (MLRA 9:11)
(GYNECOLOGY) (OBSTETRICS)